

REMARKS

This communication responds to the Office Action mailed on August 3, 2009. Claims 1, 4, 6, 10, 11, 14, 19, 20, 23, 26, 28, 30, 31, 33, and 34 are amended, no claims are canceled, and claims 36 and 37 are added. As a result, claims 1-37 are now pending in this application. Claim 6 has been amended to accommodate changes in claim 1, and not for reasons related to patentability. Claims 4, 10, 14, 19, 28, 30, 33, and 34 have been amended to correct use of a punctuation mark, and not for reasons related to patentability. The amendments are fully supported in the original specification, for example, at FIG. 1 and paragraphs [0014] & [0015]. Thus, no new matter has been added.

Specification Objections

The specification is objected to due to informalities. The specification has been amended to provide a serial number for the related U.S. Patent Application. It is therefore respectfully requested that the objection to the specification be reconsidered and withdrawn.

Claim Objections

Claims 1, 4, 6, 10, 14, 19, 20, 23, 26, 28, 30, 33 and 34 are objected to due to informalities. These claims have been amended to include correct use of a colon. It is therefore respectfully requested that objection to these claims be reconsidered and withdrawn.

Double Patenting Rejection

Claims 1-35 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-41 of copending U.S. Patent Application Serial No.10/748,306.

The Applicant does not admit that claims 1-35 are obvious in view of claim 1 of the above cited co-pending U.S. Application. However, a Terminal Disclaimer in compliance with 37 C.F.R. § 1.321(b)(iv) is enclosed herewith to expedite prosecution and to obviate this rejection.

§ 102 Rejection of the Claims

Claims 1, 2, 7, 11, 12, 16, 20, 23, 26, 29-32, and 35 are rejected under 35 U.S.C 102(e) as being anticipated by Ling et al. (U.S. 6,771,706, hereinafter “Ling”). Since a proper *prima facie* case of anticipation has not been established with respect to the amended independent claims 1, 11, 20, 23, 26, and 31, this rejection is respectfully traversed.

In particular, Ling discusses “deriv[ing] channel state information (CSI) indicative of the characteristics of the transmission channels used for data transmission.” Ling, col. 1, lines 63-66. Under Ling’s approach, however, “[t]he CSI is then reported back to the transmitter system and used to adjust the signal processing.” Ling, col. 1, lines 66-67. Therefore, Ling fails to show “receiving the second number of training symbols and data without requiring channel state information (CSI) feedback from the receiver,” as recited in amended independent claim 1.

These arguments in favor of patentability of claim 1 apply similarly to amended independent claim 11, 20, 23, 26, and 31.

Since Ling fails to teach all the elements as recited in amended independent claims 1, 11, 20, 23, 26, and 31, the Applicant respectfully submits that these claims are in condition for allowance. Therefore, it is respectfully requested that the rejection of independent claims 1, 11, 20, 23, 26, and 31 under 35 U.S.C. § 102(e) be reconsidered and withdrawn.

Claims 2, 7, 12, 16, 29, 30, 32, and 35 depend from their respective independent claims 1, 11, 20, 26, and 31 and contain additional, patentable subject matter. For at least the same reasons as have been noted with respect to amended independent claims 1, 11, 20, 26, and 31, the Applicant respectfully submits that these dependent claims are also in condition for allowance. It is therefore respectfully requested that the rejection of claims 2, 7, 12, 16, 29, 30, 32, and 35 under 35 U.S.C. § 102(e) also be reconsidered and withdrawn.

§ 103 Rejection of the Claims

Claims 3-6, 8, 9, 13-15, 17, 18, 21, 22, 24, 25, 28, 30, 33, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable in view of Ling and Whitehill et al. (U.S. 2002/0191573 A1, hereinafter “Whitehill”). In view of the amendments to independent claims 1, 11, 20, 23, 26, and 31, this rejection is respectfully traversed.

Ling was discussed in the preceding section.

Whitehill was cited to remedy the deficiency of Ling with respect to, for example, receiving a clear to transmit a response. *See* Office Action, p. 13, first full paragraph. It is respectfully noted that Whitehill also teaches that “[u]pon receiving the message packet ... [i]f the packet decodes successfully, the destination node sends the channel quality information to the source in an ACK packet ... [i]f the packet does not decode successfully, the destination node sends the channel quality information to the source node in a NACK packet.” Whitehill, paragraph [0053]. Therefore, Whitehill does not supply the elements of amended independent claims 1, 11, 20, 23, 26, and 31 that are missing from Ling. The Applicant is unable to find any such teaching within the bounds of Ling or Whitehill, alone or in combination.

Claims 3-6, 8, 9, 13-15, 17, 18, 21, 22, 24, 25, 28, 30, 33, and 34 depend from their respective independent claims 1, 11, 20, 23, 26, and 31 and contain additional, patentable subject matter. Since claims 1, 11, 20, 23, 26, and 31 are nonobvious, dependent claims 3-6, 8, 9, 13-15, 17, 18, 21, 22, 24, 25, 28, 30, 33, and 34 are also nonobvious, because any claim depending from a nonobvious independent claim is also nonobvious. *See* M.P.E.P. 2143.03. Thus, for at least the same reasons as amended independent claims 1, 11, 20, 23, 26, and 31, it is respectfully requested that the rejection of claims 3-6, 8, 9, 13-15, 17, 18, 21, 22, 24, 25, 28, 30, 33, and 34 under 35 U.S.C. § 103(a) also be reconsidered and withdrawn.

Claims 10 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable in view of Ling and Schramm (U.S. 2002/0110138 A1). Claims 10 and 19 depend from claim 11 and contain additional, patentable subject matter. Schramm was cited to remedy the deficiency of Ling with respect to transmitting a header. *See* Office Action, p. 13, ninth paragraph. Schramm does not, however, supply the previously-discussed features of independent claim 11 that are missing from Ling. Since claim 11 is nonobvious, dependent claims 10 and 19 are also nonobvious, because any claim depending from a nonobvious independent claim is also nonobvious. *See* M.P.E.P. 2143.03. Thus, for at least the same reasons as amended independent claim 11, it is respectfully requested that the rejection of claims 10 and 19 under 35 U.S.C. § 103(a) also be reconsidered and withdrawn.

New Claims

Claims 36 and 37 are newly added. Support for the new claims may be found in the specification, such as at FIG. 1 and paragraph [0015]. Thus, no new matter has been introduced in the added claims. Claims 36 and 37 depend from their respective independent claims 26 and 31 and contain additional, patentable subject matter. Since claims 26 and 31 are nonobvious, new claims 36 and 37 are also nonobvious, because any claim depending from a nonobvious independent claim is also nonobvious. *See* M.P.E.P. 2143.03. In addition, none of the cited documents, alone or in combination, teaches or suggests “each antenna is coupled to one of the number of transmit chains and one of the number of receive chains, wherein the transmit chain and the receive chain coupled to the antenna are not shared by other antennas,” as similarly recited in new claims 36 and 37. Thus, for at least the reasons stated above, it is respectfully requested that claims 36 and 37 be considered and allowed.

CONCLUSION

It is respectfully submitted that all of the pending claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone the undersigned at (210) 308-5677 to facilitate prosecution of this application. If necessary, please charge any additional fees or deficiencies, or credit any overpayments to Deposit Account No. 19-0743.

Respectfully submitted,

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